ABSTRACT OF THE DISCLOSURE

A metallic object has a coating made of a thin metal oxide layer and nucleic acids or nucleic acid derivatives bonded thereto. The nucleic acid compounds have 5'-terminal or 3'-terminal molecule areas that are incorporated stably into the metal oxide layer. The unincorporated areas of the nucleic acid compounds that are not incorporated into the metal oxide layer are freely accessible for subsequent interactions with other molecules such as complementary nucleic acids having active ingredients attached thereto.